(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 22 September 2005 (22.09.2005)

PCT

(10) International Publication Number WO 2005/088345 A1

(51) International Patent Classification⁷: G

G01T 1/20

(21) International Application Number:

PCT/IB2005/050622

(22) International Filing Date: 21 February 2005 (21.02.2005)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 04100896.2

5 March 2004 (05.03.2004) EP

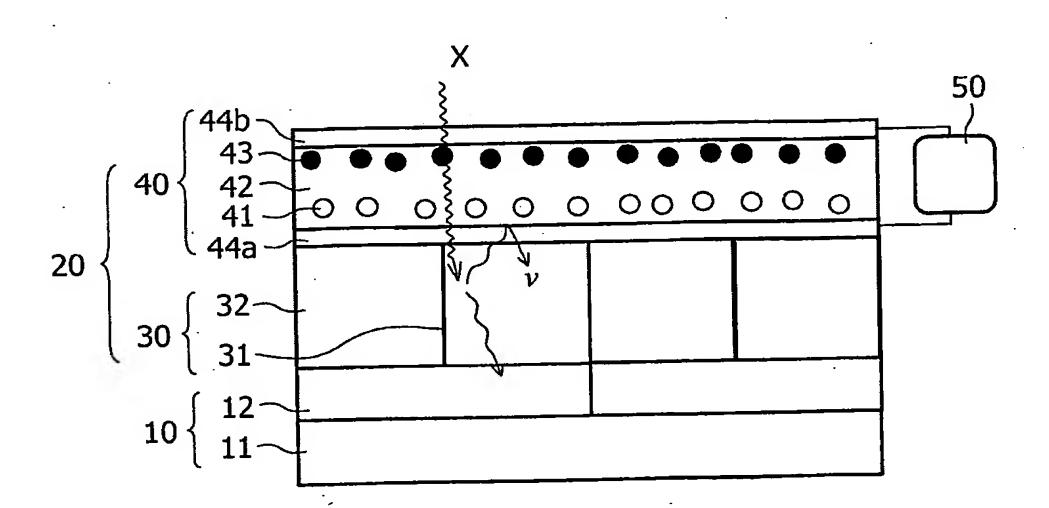
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: SCINTILLATOR FOR AN X-RAY DETECTOR WITH A VARIABLE REFLECTOR



(57) Abstract: The invention concerns an X-ray detector with a photo-sensitive detector layer (10) above which a scintillation layer (30) for the conversion of X-rays (X) into photons (v) is disposed. Photons (v) are reflected back into the scintillation layer (30) by a reflector (40) that is provided on the scintillation layer (30) for an improved signal gain and signal-to-noise ratio. The reflectivity of the reflector (40) can be externally controlled. This is achieved for example by a reflective layer (41, 42, 43) of E-Ink being disposed between two electrodes (44a, 44b). Thus the reflectivity can be decreased at sufficiently high X-ray doses in order to improve image sharpness and dynamic range of the detector.

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SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

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